

REMARKS

Claims 1, 4-16, and 26-43 are pending. Claims 1 and 4 are currently amended. Claims 2-3, 17-25 and 44-60 are canceled without prejudice.

Reconsideration of the application is requested.

Claim 1 has been amended to correct the two misspellings of “Rresponse”.

Claim 1 has been amended to specify that the IRM compound is “covalently attached”, support for which can be found in original claim 3.

Claim 1 has been amended to specify that the IRM compound is attached on “the surface” of the particle, support for which can be found at page 26, line 9 of the application.

Claim 1 has been amended to specify that the IRM compound is a TLR 6, 7, and/or 8 agonist, support for which can be found in original claim 20.

Claim 4 has been amended to change dependency from canceled claim 3 to claim 1.

§ 103 Rejections

Claims 1-16 and 19-43 were rejected under 35 USC § 103(a) as being unpatentable over CARUSO et al. (US 6,479,146) in view of HEMMI et al. (Nature Immunology, 2002) and in view of HAINFELD et al. (US 5,521,289). Applicants respectfully traverse.

Amended claim 1 requires the recited IRM compounds be covalently attached to the surface of a metal-containing particle.

CURUSO et al. fails to disclose or suggest IRM compounds (or any other drug) covalently attached to the surface of a metal-containing particle.

HEMMI et al. fails to disclose or suggest IRM compounds (or any other drug) covalently attached to the surface of a metal-containing particle. HEMMI et al. discloses TLR activation of the claimed compounds, but does not disclose any specific mechanism of interaction that would allow a skilled person in the art to reasonably expect that a drug molecule of the claimed invention could remain active while covalently attached.

HAINFELD et al. discloses metal cores functionalized for attachment to other molecules, including drugs, as stated in the Office Action, but there is no suggestion to do so with IRM

compounds of the claimed invention or that such compounds would remain active TLR 6, 7 and/or 8 agonists when so attached. Nor does HAINFELD et al. provide any teaching of how compounds of the claimed invention would actually be attached to the particles.

Applicants respectfully submit that the three cited references, alone or in combination, fail to enable the claimed invention. Applicants also respectfully submit that, without applying impermissible hindsight, one skilled in the art would not have been motivated to make the claimed combination with a reasonable expectation of success. The statement in the present application that covalent bonding may be achieved by methods known in the art is in the context of the present application showing examples of how the claimed IRM compounds can be covalently attached and that they can remain biologically active while they are attached. Nothing in any of the three cited references discloses or suggests how to make the claimed invention, a motivation to make the claimed invention or any reasonable expectation that it would work. Therefore, it is submitted that a *prima facie* case of obviousness has not been established or, if established, is rebutted by the surprising result that the IRM compounds remain biologically active while attached to metal-containing particles.

Obviousness-type Double Patenting

With regard to the double patenting rejections over application 10/640,904 (now US 7,427,629) in view HAINFELD et al., Applicants respectfully traverse and request reconsideration.

Claims 1 and 2 of the '629 patent are directed to an IRM compound linked to an antigen, which is very different from a solid metal-containing particle support. One skilled in the art would not combine the '629 patent claims with art such as HAINFELD et al. since the two are not related technically from a biologic perspective.

With regard to the provisional double patenting rejection over claims 1, 18-24 and 32 of copending application 10/821330, a terminal disclaimer is enclosed.

Accordingly, in view of the above, withdrawal of the obviousness-type double patenting rejections is requested.

In view of the above, it is submitted that the application as amended is in condition for allowance. Consideration and favorable action are therefore requested.

Respectfully submitted,

March 15, 2010

Date

By: /Ted K. Ringsred/

Ted K. Ringsred, Reg. No.: 35,658

Telephone No.: 651-736-5839

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833